OIPE JC103
FEB 15 2005
PATENT & TRADEMARK OFFICE

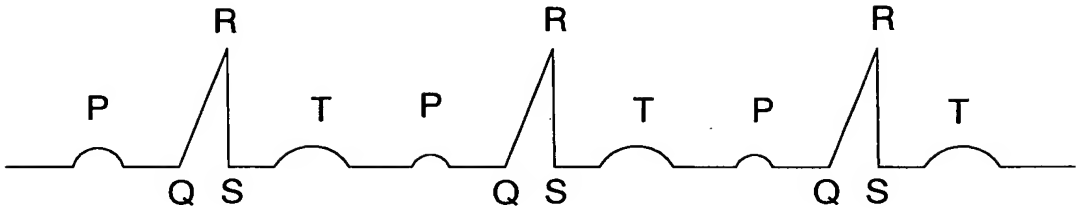


Figure 1

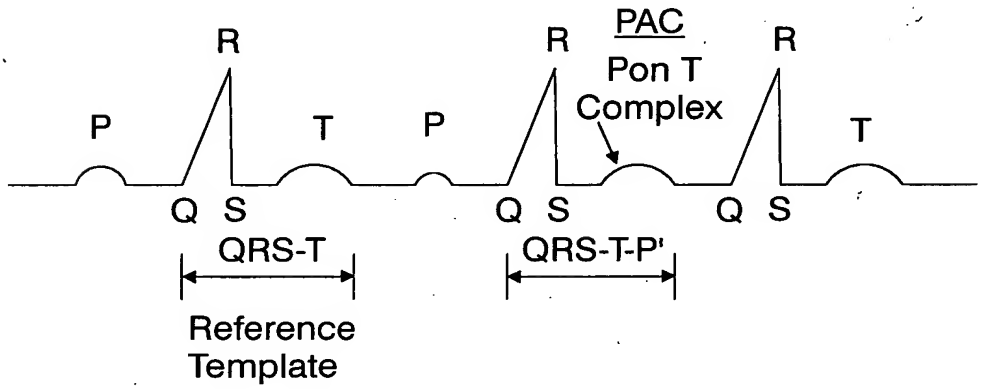


Figure 2

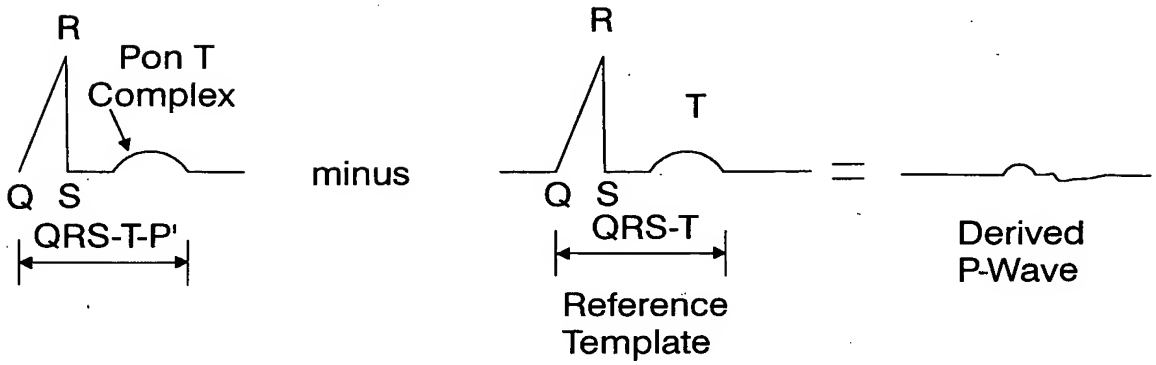


Figure 3

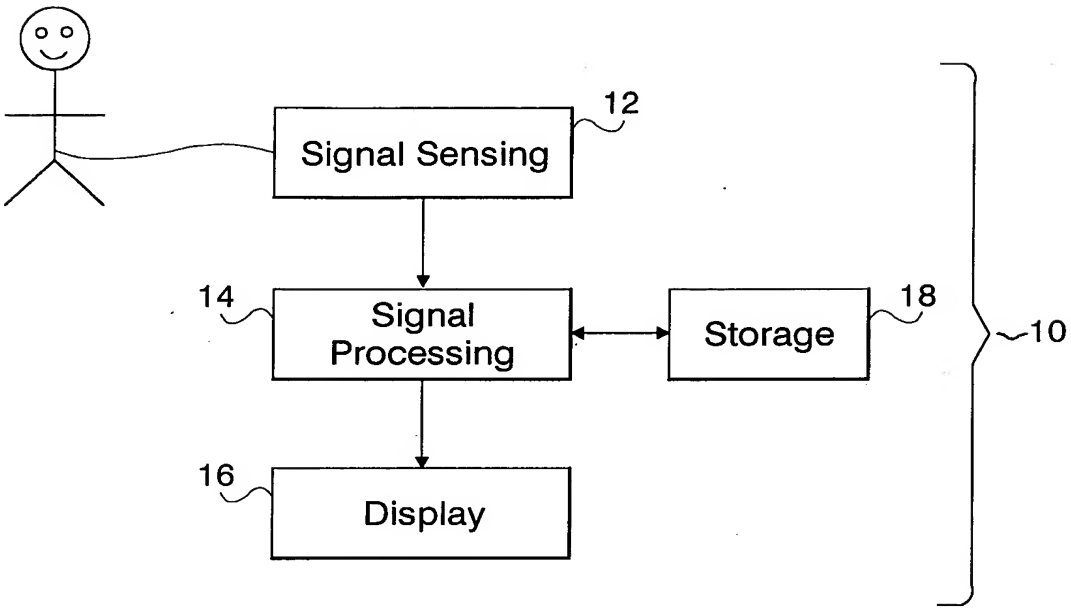

Signal Sensing
12
14
Signal Processing
Storage
18
10
16
Display

Figure 4

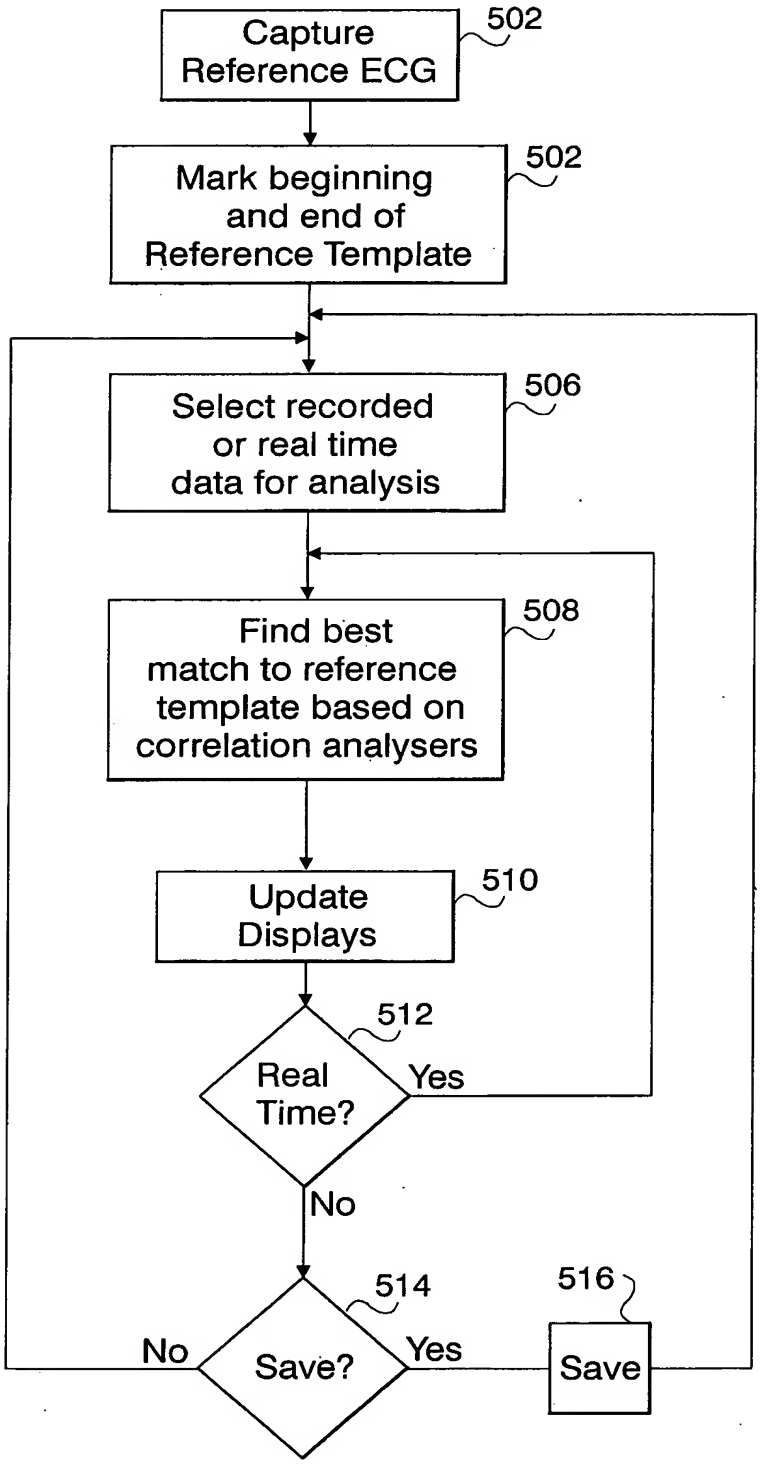

Capture Reference ECG
502
Mark beginning and end of Reference Template
502
Select recorded or real time data for analysis
506
Find best match to reference template based on correlation analysers
508
Update Displays
510
Real Time?
512
Yes
No
Save?
514
No
Yes
Save
516

Figure 5

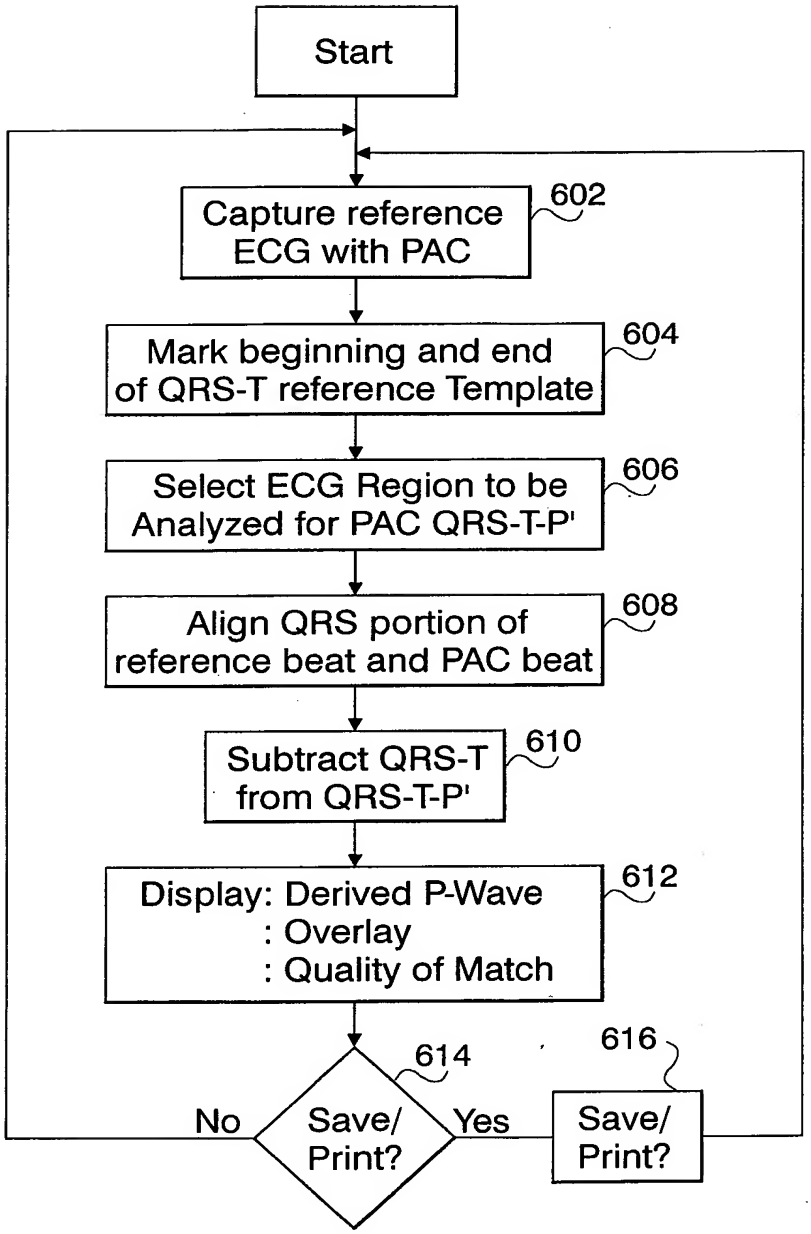

Start
Capture reference ECG with PAC
602
Mark beginning and end of QRS-T reference Template
604
Select ECG Region to be Analyzed for PAC QRS-T-P'
606
Align QRS portion of reference beat and PAC beat
608
Subtract QRS-T from QRS-T-P'
610
Display: Derived P-Wave
: Overlay
: Quality of Match
612
614
Save/ Print?
No
Yes
616
Save/ Print?

Figure 6

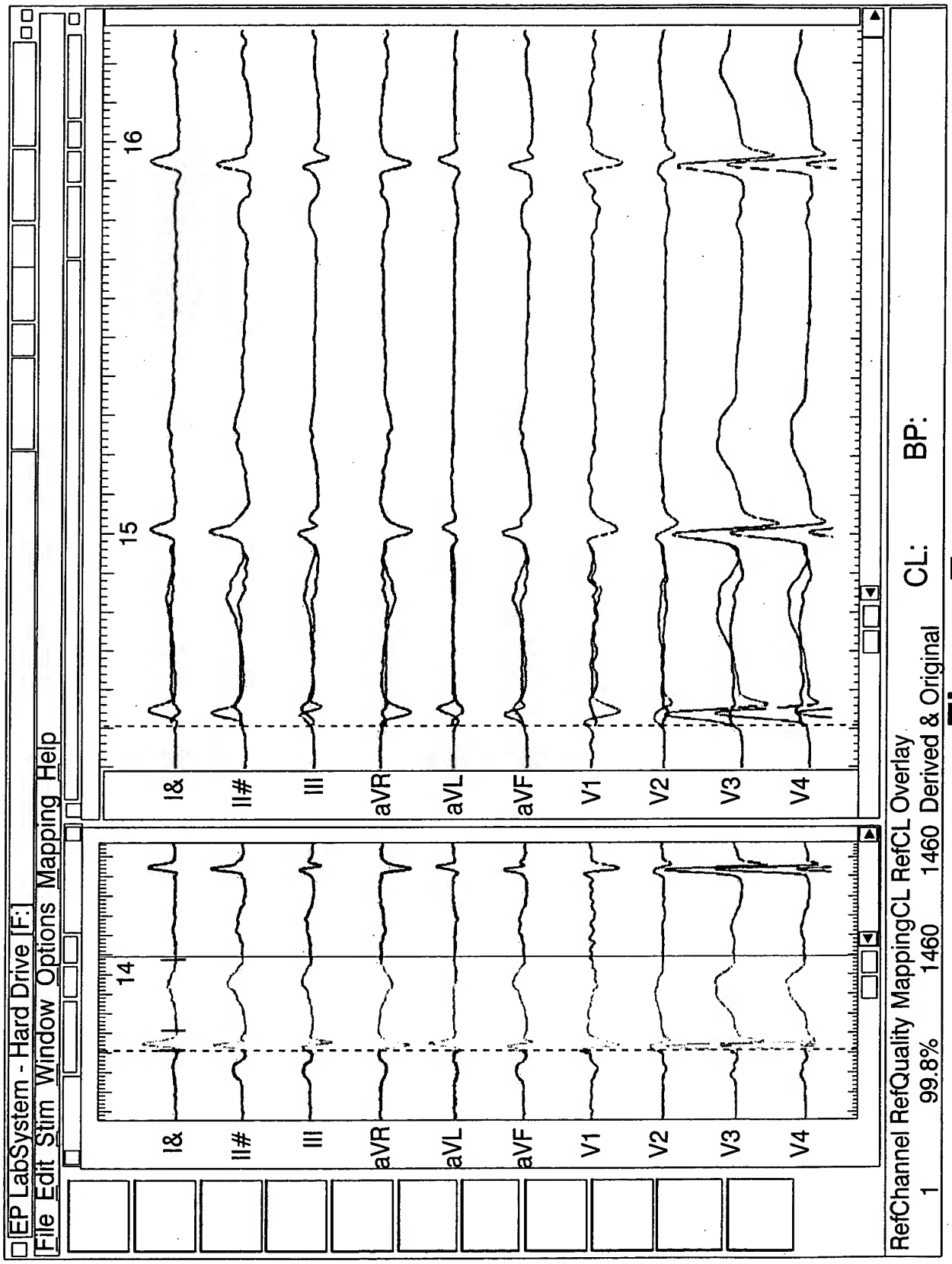

EP LabSystem - Hard Drive [F:]
File Edit Stim Window Options Mapping Help
I&
II#
III
aVR
aVL
aVF
V1
V2
V3
V4
14
15
16
RefChannel RefQuality MappingCL RefCL Overlay
1
99.8%
1460
1460
Derived & Original
CL:
BP:

Figure 7

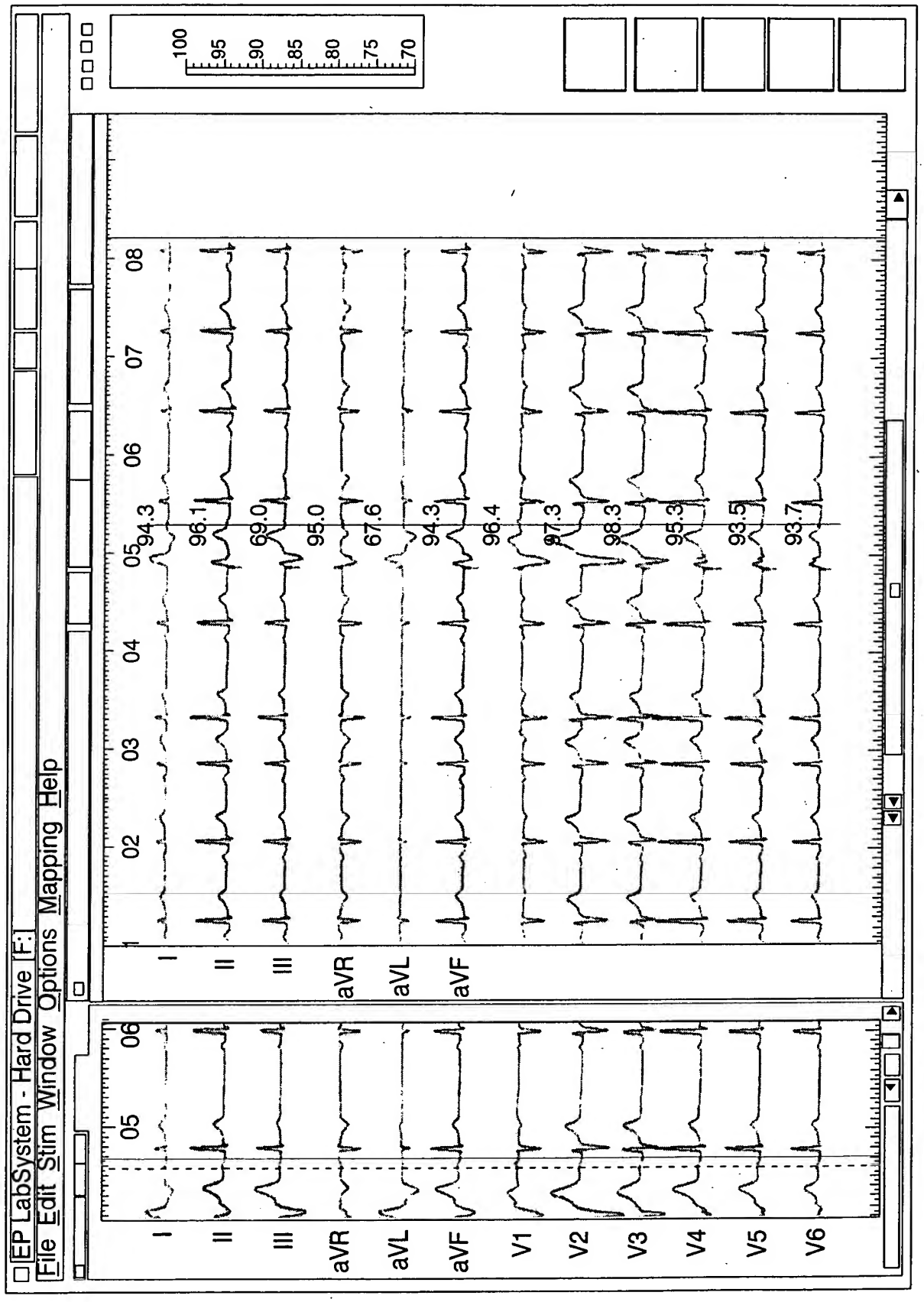
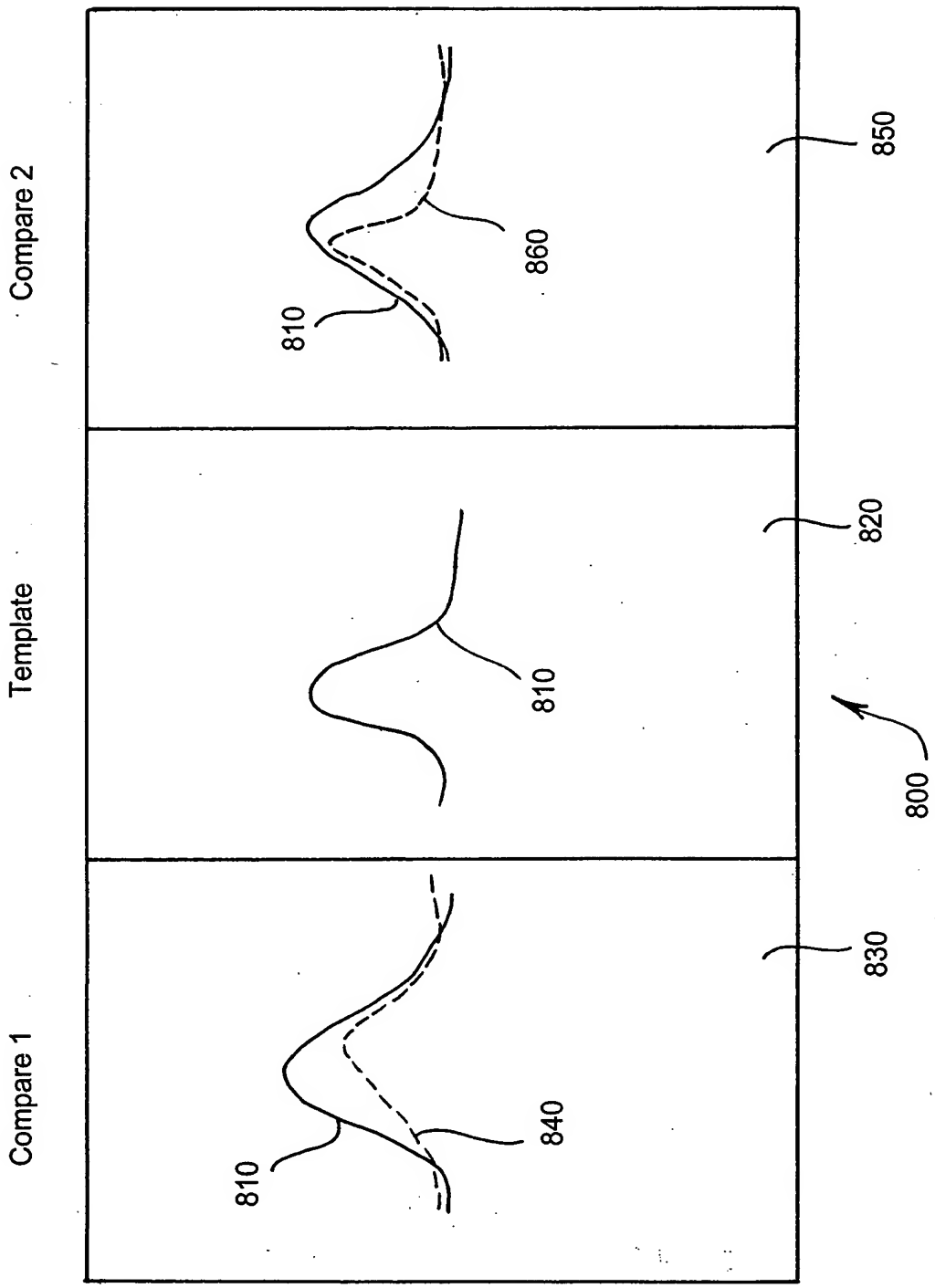

EP LabSystem - Hard Drive [F:]
File Edit Stim Window Options Mapping Help
I
II
III
aVR
aVL
aVF
V1
V2
V3
V4
V5
V6
100
95
90
85
80
75
70
94.3
96.1
69.0
95.0
67.6
94.3
96.4
97.3
98.3
95.3
93.5
93.7

Figure 8

Figure 8A


Compare 2
Template
Compare 1
810
860
810
810
840
850
820
830
800

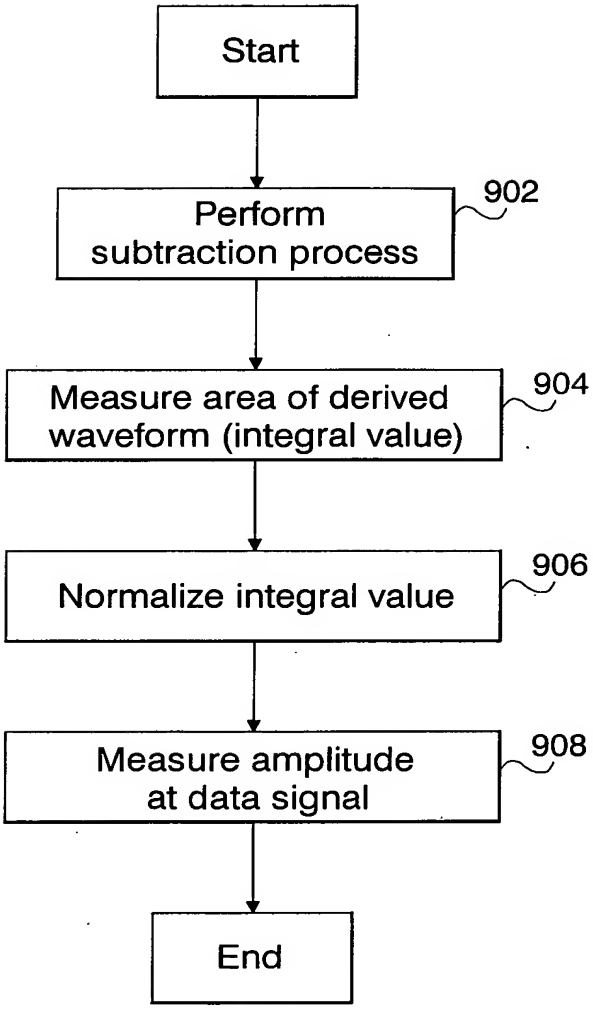

Start
Perform subtraction process
902
Measure area of derived waveform (integral value)
904
Normalize integral value
906
Measure amplitude at data signal
908
End

Figure 9

Figure 10A

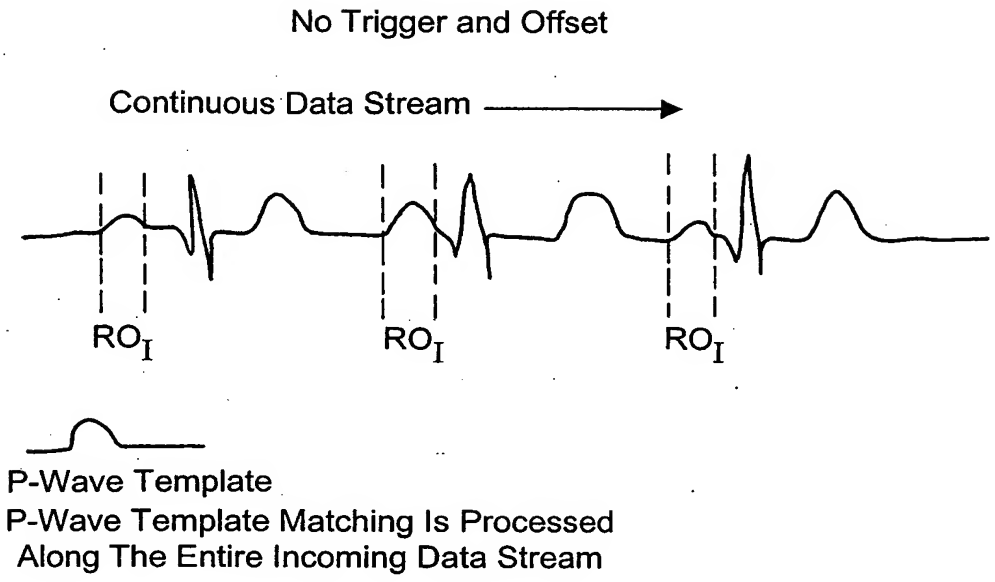


Figure 10B

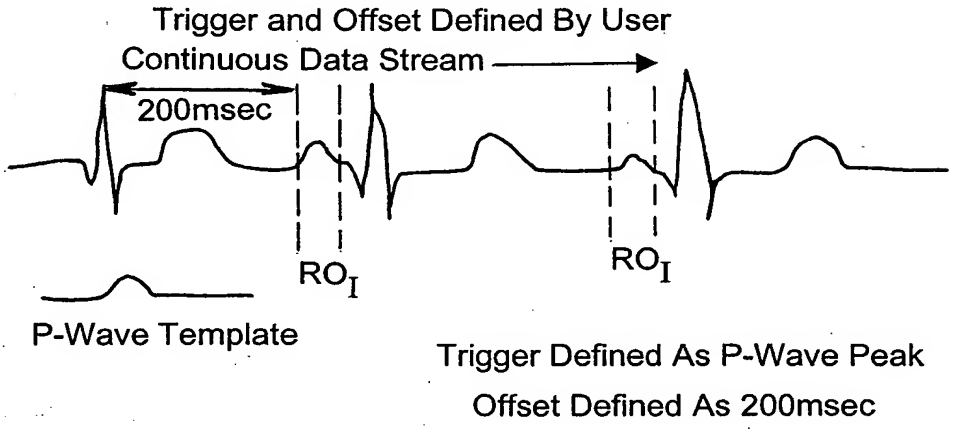


Figure 10C

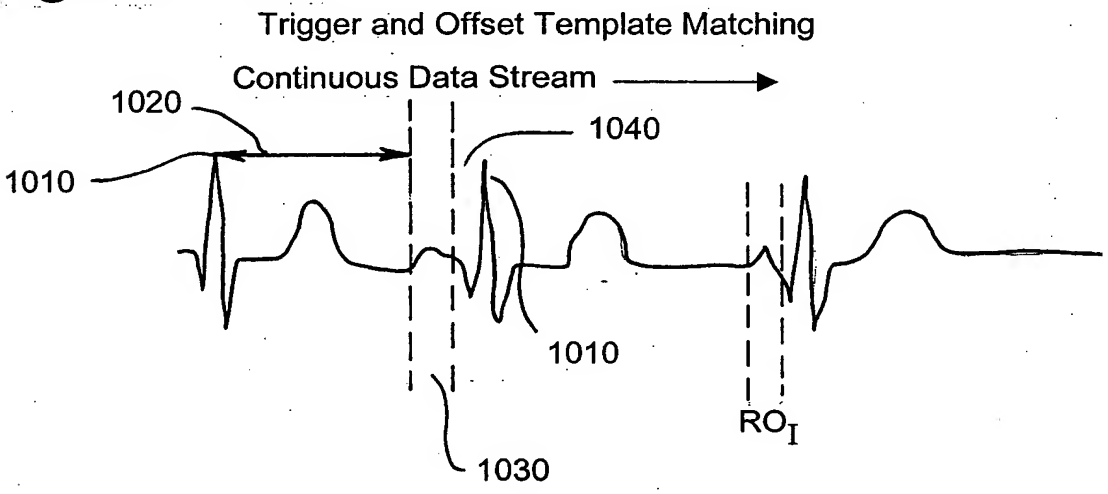
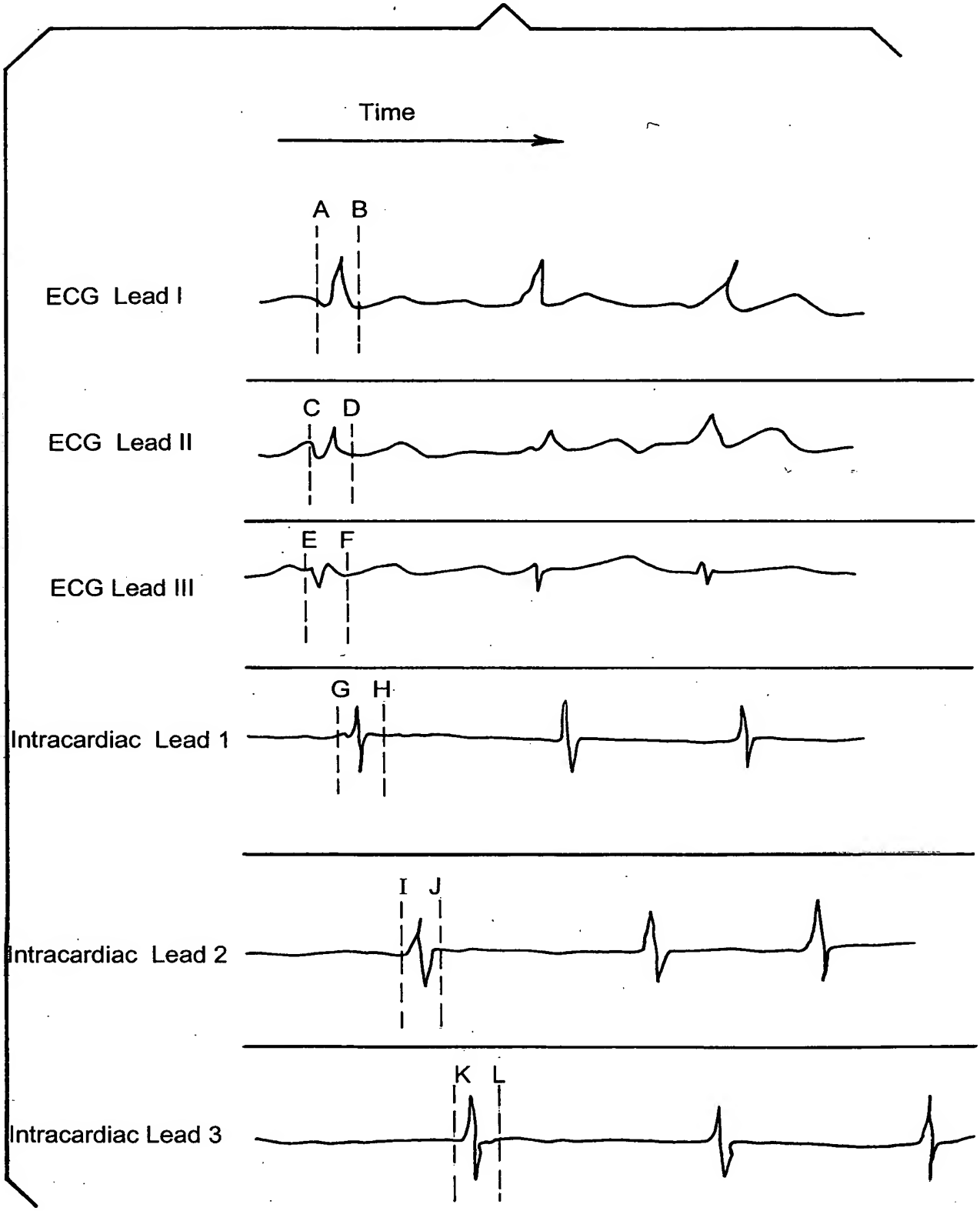


Figure 11


Time
A
B
ECG Lead I
C
D
ECG Lead II
E
F
ECG Lead III
G
H
Intracardiac Lead 1
I
J
Intracardiac Lead 2
K
L
Intracardiac Lead 3